

## CLAIMS

1. A method of determining a numerical value of similarity as between a pair of artists, the method comprising:

- calculating for each artist a list of artist style values, each artist style value being representative of a style of the artist and a weight of such style as exhibited by such artist;
- calculating a set of style similarity values, each style similarity value setting forth a relative similarity as between two styles; and
- calculating, based on the list of artist style values for each artist and the calculated set of style similarity values, a style list comparison similarity score representing a relative similarity of the styles of the pair of artists.

2. The method of claim 1 wherein each artist style value is calculated as:

$$\begin{aligned} \text{ArtistStyle}(\text{Artist}, \text{Style}) &= 10 * \text{StyleWeight}(\text{Artist}, \text{Style}) + \\ &\Sigma \text{Artist Albums (StyleWeight(Album, Style) *} \\ &(\text{1 + LocalRating(Album) + Pick(Album)})), \end{aligned}$$

wherein each instance of  $\text{StyleWeight}(\text{Artist}, \text{Style})$ ,  $\text{Artist Albums (StyleWeight(Album, Style))}$ ,  $\text{LocalRating(Album)}$ , and  $\text{Pick(Album)}$  is obtained from a database.

3. The method of claim 1 further comprising truncating the list of artist style values for each artist to cull low-weight styles therein, and comprising calculating, based on the truncated list of artist style values for each artist and the calculated set of style similarity values, a style list comparison similarity score representing a relative similarity of the styles of the pair of artists.

4. The method of claim 3 wherein truncating the list for each artist comprises culling any artist style value after a highest weight value if less than a predetermined percentage thereof.

5. The method of claim 3 wherein truncating the list for each artist comprises culling any artist style value if less than an Nth highest weight value.

6. The method of claim 1 wherein each style similarity value is calculated as:

$$1000 * \text{CoStyleSum}(\text{Style1}, \text{Style2}) / \\ (\text{StyleSum}(\text{Style1}) + \text{StyleSum}(\text{Style2}) - \\ \text{CoStyleSum}(\text{Style1}, \text{Style2})),$$

where:

$$\text{CoStyleSum}(\text{Style1}, \text{Style2}) = \\ \Sigma \text{ArtistMagnitude}(\text{Artist}) [\text{over all artists with Style1 and Style2}] + \\ \Sigma \text{AlbumMagnitude}(\text{Album}) [\text{over all albums with Style1 and Style2}];$$

and

$$\text{StyleSum}(\text{Style}) = \\ \Sigma \text{ArtistMagnitude}(\text{Artist}) [\text{over all artists with Style}] + \\ \Sigma \text{AlbumMagnitude}(\text{Album}) [\text{over all albums with Style}],$$

and where:

$$\text{ArtistMagnitude}(\text{Artist}) \text{ (a measure of magnitude for each artist)} = \\ 4 + \text{Importance}(\text{Artist}) + \text{Quality}(\text{Artist}) + \text{Popularity}(\text{Artist}); \text{ and}$$

AlbumMagnitude(Album) (a measure of magnitude for each album)  
 =  
 3 + Pick(Album) + (GlobalRating(Album) – 6 [if GlobalRating(Album)  
 > 6, 0 otherwise]);

wherein each instance of Importance(Artist), Quality(Artist), Popularity(Artist), Pick(Album), and GlobalRating(Album) is obtained from a database.

7. The method of claim 1 wherein the style list comparison similarity score is calculated as:

$$\text{StyleListCompare}(A, B) = (\text{Compare}(A, B) + \text{Compare}(B, A)) / 2$$

where,

$$\text{Compare}(A, B) = \sum_{a \in A}^n \max \{ \text{StyleSimilarity}(a, b \in B) \} \times \frac{\text{Weight}(a)}{\sum_{x \in A} \text{Weight}(x)}$$

8. The method of claim 1 further comprising:  
 obtaining for each artist a list of artist tone values, each artist tone value being representative of a tone of the artist and a weight of such tone as exhibited by such artist; and  
 calculating, based on the list of artist tone values for each artist, a tone list comparison similarity score representing a relative similarity of the tones of the pair of artists.

9. The method of claim 8 further comprising:

calculating a bonus comparison function that results in a bonus weight representative of an aspect of at least one of the pair of artists;  
applying the bonus weight to a combination of the style list comparison similarity score and the tone list comparison similarity score to achieve a final similarity score.

10. The method of claim 9 comprising multiplying the bonus weight by a weighted sum of the style list comparison similarity score and the tone list comparison similarity score to achieve the final similarity score.

11. The method of claim 10 wherein the final similarity score is:

$$\text{Bonus Weight} * (.8 * \text{Style Score} + .2 * \text{Tone Score}).$$

12. The method of claim 1 further comprising:  
calculating a bonus comparison function that results in a bonus weight representative of an aspect of at least one of the pair of artists;  
applying the bonus weight to the style list comparison similarity score to achieve a final similarity score.

13. The method of claim 12 comprising multiplying the bonus weight by the style list comparison similarity score to achieve the final similarity score.

14. A method of determining a numerical value of similarity as between a pair of comparison subjects, the method comprising:  
calculating for each comparison subject a list of comparison subject attribute values, each comparison subject attribute value being representative of an instance of an attribute of the comparison subject and a weight of such instance as exhibited by such comparison subject;

calculating a set of attribute instance similarity values, each attribute instance similarity value setting forth a relative similarity as between two instances of the attribute; and

calculating, based on the list of comparison subject attribute values for each comparison subject and the calculated set of attribute instance similarity values, an attribute instance list comparison similarity score representing a relative similarity of the instances of the attribute of the pair of comparison subjects.

15. The method of claim 14 further comprising truncating the list of comparison subject attribute values for each comparison subject to cull low-weight attribute instances therein, and comprising calculating, based on the truncated list of comparison subject attribute values for each comparison subject and the calculated set of attribute instance similarity values, an attribute instance list comparison similarity score representing a relative similarity of the instances of the attribute of the pair of comparison subjects.

16. The method of claim 15 wherein truncating the list for each comparison subject comprises culling any comparison subject attribute value after a highest weight value if less than a predetermined percentage thereof.

17. The method of claim 15 wherein truncating the list for each comparison subject comprises culling any comparison subject attribute value if less than an Nth highest weight value.

18. The method of claim 14 wherein the attribute instance list comparison similarity score is calculated as:

$$\text{AttributeListCompare}(A, B) = (\text{Compare}(A, B) + \text{Compare}(B, A)) / 2$$

where,

$Compare(A, B) =$

$$\sum_{a \in A}^n \max \{AttributeInstanceSimilarity(a, b \in B)\} \times Weight(a) / \sum_{x \in A} Weight(x)$$

19. The method of claim 14 further comprising:

obtaining for each comparison subject another list of comparison subject attribute values, each comparison subject attribute value in the another list being representative of an instance of another attribute of the comparison subject and a weight of such another instance as exhibited by such comparison subject; and

calculating, based on the another list of comparison subject attribute values for each comparison subject, another attribute instance list comparison similarity score representing a relative similarity of the instances of the another attribute of the pair of comparison subjects.

20. The method of claim 19 further comprising:

calculating a bonus comparison function that results in a bonus weight representative of an aspect of at least one of the pair of comparison subjects;

applying the bonus weight to a combination of the attribute list comparison similarity score and the another attribute list comparison similarity score to achieve a final similarity score.

21. The method of claim 20 comprising multiplying the bonus weight by a weighted sum of the attribute list comparison similarity score and the another attribute list comparison similarity score to achieve the final similarity score.

22. The method of claim 14 further comprising:

calculating a bonus comparison function that results in a bonus weight representative of an aspect of at least one of the pair of comparison subjects;

applying the bonus weight to the attribute list comparison similarity score to achieve a final similarity score.

23. The method of claim 22 comprising multiplying the bonus weight by the attribute list comparison similarity score to achieve the final similarity score.